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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,745	09/29/2003	Kazuhiro Ishiguchi	50073-066	3737

7590 05/09/2007  
MCDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
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DINH, DUC Q

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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05/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/671,745	<b>Applicant(s)</b> ISHIGUCHI, KAZUHIRO	
	<b>Examiner</b> DUC Q. DINH	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 1807.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 2 is objected to because of the following informalities: "election signal output" in line 8, should read "selection signal output". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Nose et al (U.S Patent No. 6,819,311), hereinafter Nose.

In reference to claim 1, Nose discloses a liquid crystal display (Fig. 11) comprising:

a liquid crystal panel (1) having a large number of picture elements arranged at intersections of plural selection lines (G1-Gn) and data lines (D1-Dn);

a selection line signal output IC (11-14) for outputting a selection line signal (VG) to the selection lines (G) of said liquid crystal panel;

a signal line drive IC (20) for outputting an image write voltage (data) and a black write voltage (black) to the data line of said liquid crystal panel; (see Fig. 1) and

a reference voltage generator circuit (the display inherently have a voltage generating to generates the voltage VD for image DATA and BLACK voltage as shown in Fig. 1), which is arranged so as to generate a reference voltage (VD) including an image display voltage for outputting an image write voltage (DATA) and a black display voltage for outputting a black write voltage (BLACK), switches over the reference voltage either to said image display voltage or to said black display voltage, and supplies said reference voltage to said signal line drive IC (see Figs. 1, 4, 6-9);

wherein switching said reference voltage is performed so that an image display period for supplying said image display voltage and a black display period for supplying the black display voltage are contained in one horizontal period, and the switching the reference voltage is synchronized with change in selection line signals (VGs) of lines in which an image of said selection line is written and lines in which black is written (col. 8, lines 14-40).

In reference to claim 2, Nose discloses when said selection line signal output IC drives nG selection lines and a selection line clock period TH (VCLK Fig. 11) is used for driving said selection lines, a signal (OE), which makes the output of said selection line signal output IC valid when said reference voltage is switched to the image display voltage while making the output of said selection line signal output IC invalid when said reference voltage (VD) is switched to the black display voltage, is inputted to said election signal output IC during nGTH period from input of a start pulse (VST), and an inverted signal of said signal is inputted after the nGTH period (col. 14, lines 17-28).

In reference to claim 3, Nose discloses the reference voltage is switched from the black display voltage to the image display voltage at time T1 and switched from the image display

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voltage to the black display voltage at time T2, said selection line signal output IC outputs the selection line signals so that the lines of the selection lines selected at time  $(T2-T1)/2$  are changed to a non-selective state at a time later than  $(T2-T1)/2$  and earlier than T2 (see Figs 1).

In reference to claim said reference 4, Nose discloses voltage is switched in a horizontal blanking period during which no image data is loaded in said signal line drive IC (col. 3, lines 40-45).

In reference to claim 5, Nose discloses wherein said reference voltage is switched during a period when image data are loaded in said signal line drive IC (col. 8, lines 17-24).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q. DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE can be reached on (571)272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.(toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DUC Q DINH

Examiner

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A handwritten signature in cursive script, appearing to read "Duc Q Dinh", written in black ink.